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Extract of the Boston Medical and Surgical Journal, Vol. 9, No. 6, September 18, 1833 containing two notices by Professor Thomas Sewall of Washington, DC regarding (1) the demonstration of St. Martin at the Medical College and (2) description of the work of Beaumont. September 18, 1833

Copy of the Boston Medical and Surgical Journal, v.9, no.6, Sept.18,1833, containing a note by Prof.Thomas Sewall of Washington, D.C., regarding the demonstration of Alexis St.Martin at the Medical College, and another note by Dr.Sewall describing the work of Dr.Beaumont.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. IX.] WEDNESDAY, SEPTEMBER 18, 1833. [NO. 6.

ON THE INJURIOUS EFFECTS OF MERCURY IN SOME FORMS OF DISEASE.

[From the London Medical Gazette.]

SIR,—There is a state of disorder in children, occurring more frequently in those of scrofulous temperaments, which is evinced by languor, loss of appetite, a diminution and sometimes a total cessation of the biliary secretion, with slight emaciation, more particularly of the extremities, in which my experience would declare that mercurial medicines are absolutely prejudicial; and yet how universally would such a train of symptoms be supposed to demand their free and continued use! Some years ago I was requested to see a child whose state, as nearly as possible, was as described above. Mercurials in moderate doses, with laxative and stomachic medicines, were prescribed, but in a few months the child died. Post-mortem examination presented great alteration of structure in the abdominal cavity, more particularly in the liver and mesenteric glands: these local changes appeared to me a justification of my practice. Some months afterwards I was requested to see another child of the same family, nearly under the same circumstances; but the anxiety of the parents, roused by the fatal termination of the first case, led them to apply to me when the child was in tolerable health, but the motions were colorless. I adopted a slight mercurial plan, &c. as before. The child from that hour became worse; lost appetite, flesh, and strength, and became as children do to whom mercurials are frequently given, unnaturally pale and unnaturally irritable. Under the care of a physician, who pointed out to me my error, the child, I may say, rapidly recovered. The slight mercurial plan adopted in this case soon produced a fearful change in his state of health, and at the time the *opinion* was taken, so reduced was the child, and in every appearance so resembled the former case, that I felt at the moment very little doubt the result would be death. It is no pleasing reflection, but it necessarily intrudes itself, that it was I who was producing disease by my very remedies, and those organic changes which post-mortem examination discovered in the first case, were, I fear, produced by the use of mercury. Should we not be cautious in the use of such a power? Some of its destructive effects on the system have been most ably pointed out to us by Mr. Swan, and it is impossible to peruse his "Inquiry into the Action of Mercury" without being struck with the deep importance of his observations. He leads us to believe that mercury produces a peculiar effect on the grand sympathetic nerves, seriously affecting all the organs of digestion, and also inducing a state of inflammation in the rectum. Yet with a knowledge of these facts, how inconsiderately is

this valuable but dangerous remedy exhibited to children in the month, and why ? because there may exist a disordered action in the bowels, or a discoloration of their contents. My own experience would declare that at that early age no circumstances would justify its use, or that it should be given with that extreme caution which would almost amount to a prohibition.

I was desired to see an infant whom I found in a convulsive paroxysm. It had vomited, and there had been two dejections of a greenish fluid from the bowels. The temperature of the body was low, and the child was pallid as a corpse. I learnt that the day before the infant was in tolerable health, but its bowels had been a little disordered. A grain of calomel was given at night. The child vomited, was uneasy, and appeared occasionally faint. No relief from the bowels. Two grains of calomel were given in the morning. Within an hour after this, the child was in a state of collapse which I have described, presenting as frightful appearances as ever ushered in the most malignant disease. Ammonia restored the patient to animation. Ammonia, with rhubarb, quickly restored him to health. I adduce this as a striking instance of the baneful effects of mercury, and as an example of its injurious effects on the nervous system generally.

There is another consequence which I believe sometimes follows the frequent use of this medicine, which is *squinting*. I have witnessed this too frequently not to place some confidence in the opinion ; and if we call to mind the close connection which exists between the nerves supplying some of the muscles of the eye and the great sympathetic, Mr. Swan's opinions of mercury may receive some trifling confirmation, and my own no trifling support. It is true I have seen a slight inversion of the eye relieved by the administration of calomel and a black draught ; but the relief, I believe, was obtained in consequence of the intestines being swept of their acrid contents, which were distressing nerves rendered morbidly irritable by the use of mercury : it was relieved, too, to return more strongly marked during each successive attack of indigestion.

To this latter form of indisposition, the use of mercury more particularly leads. As Mr. Swan justly observes, "it affects all parts concerned in digestion." I have attended children whose constitutions had been ruined by this medicine, with whom it is scarcely possible to believe the effects which a fit of indigestion would produce, and how frequently this derangement was occurring. Delirium, subsultus, hot skin, pulse 120, and even more frequent ; yet all these formidable symptoms *instantaneously* subsiding on relief being obtained from the bowels, and sedatives (lettuce, hyoscyamus, &c.) administered.

I may be wrong in my conjectures, but I cannot help believing there are forms of disease also in which we cannot administer this medicine without more or less injury. In all the eruptive diseases I believe we ought to be extremely cautious in its use. Some time ago I was attending an adult in the measles. The symptoms ran high, and on the third day he was exceedingly oppressed by his burthen ; coughing, breathing quickly, the face was swelled, and (as almost the whole body) was one mass of eruption ; the pulse considerably more than 100. He had not in the early stage of the disease been distressed by powerful remedies,

or reduced by *absolute* starvation. A physician of deserved eminence was consulted. He looked to the chest with much anxiety, and thought the inflammatory diathesis prevailed. Two grains of calomel, with two of James's powder, and an antimonial saline draught, were directed to be given every four hours, &c. I saw this patient two hours after the exhibition of the second dose of the medicine, and found him perfectly collected, but he was more restless, his pulse violently throbbing, and intermitting every sixth or seventh pulsation; his cough was more troublesome, and I was particularly struck with the change of color in the skin; it had become almost purple. I ordered the following medicines, and strong beef tea for nourishment.

R. Acid. Sulph. dil. gtt. x. Mag. Sulph. ℥ss. Mannæ, ℥j. Tr. Hyos. ℥ss. Tr. Card. c. ℥j. Inf. Rosæ, ℥x. M. f. haust. 6tis horis. sumend.

In three days this patient was convalescent.

I do not think I err in supposing that in all forms of constitutional irritation, the result of injuries, its use is prejudicial. I believe I have seen great aggravation of the general disturbance occur on its exhibition, and I cannot from circumstances suppose that this increase of indisposition was merely the progress of disease. This observation is founded in some experience, and is rendered probable by the following opinions contained in Mr. Swan's Essay on Tetanus. He says, "after every accident in which the constitution sympathizes with the injured part, I believe the ganglia of the grand sympathetic nerves become irritated, and the functions of the parts supplied by them with nerves are disturbed in consequence. The action of the heart is increased in proportion to this degree of irritation in them so long as it continues moderate."

HENRY GEORGE.

TWO EXTRAORDINARY CASES OF FASTING.

DR. SCHMALZ, of Dresden, in a former No. of Hufeland's Journal, has related two very singular examples of abstinence from all food, protracted for an almost incredible length of time. We must remember, however, that he saw both individuals, and had an opportunity of personally ascertaining the particulars; and, moreover, the first case was the object of a Government inquiry.

Angelica Vlies was born in the neighborhood of Delft, in South Holland, on 20th August, 1787. In her early years her constitution was very feeble and delicate, and she was much subject to cramps, induced by intestinal worms, which she voided both upwards and downwards in great quantities. She enjoyed tolerable health till 1811, about which time she was first seized with violent hysterical paroxysms; during these the bowels were obstinately confined. Subsequently she had repeated attacks of chronic enteritis, and her appetite, which had been throughout very sparing, now began to fail altogether. At one time better, and at another time worse, she continued in the above state till May 1818, when she discontinued the use of solid food entirely, and took nothing

but drinks, chiefly whey. All medicines were rejected by vomiting as soon as swallowed. For upwards of four years she tasted nothing solid, with the exception occasionally of a little fish and salad, which she sucked, but never swallowed. In the spring of 1822 the attack of hysteria became so violent as to threaten death. An enema was given on the 10th of March; the bowels and also the bladder were then relieved; and this was the last time that any regular evacuation of stool or of urine took place. About this time she refused all nourishment whatsoever, fluid as well as solid; and now the catamenia, which had hitherto been regular although scanty, ceased. She frequently moistened her mouth with a little cold water, to abate the burning heat she felt there. In July 1822 an erysipelas appeared on the abdomen; it was relieved by the constant use of bread and milk poultices. In the following year she had a severe attack of dyspnœa, and fixed pain in the left side of the chest. Her physician, Dr. Grootenbeer, ordered a blister. In 1824 she had repeated seizures of subacute arteritis. In 1825 these seizures were neither so frequent nor so severe; in October of this year she voided, after most excruciating suffering, a small quantity of urine and fæces. During 1826 she made urine twice, and at each time only a few drops. Thus, from the 10th March, 1822, to this period, she had had relief only once by stool, and three times by urine. The Dutch medical commission were very anxious at this time to induce her to remove to the Hague, in order that an opportunity might be had of strictly inquiring into her case; she would not, however, consent to this, but permitted four nurses to wait upon her alternately for the space of a month; the expense of their attendance was defrayed by Government. Soon afterwards a memoir was drawn up by Dr. Vorstman, and published at Delft in 1827. According to the authentic reports of the nurses, Angelica took no food, fluid or solid, from Nov. 11th to Dec. 9th. During this time she used to moisten her mouth with water, tea, or whey; but she invariably spat the fluid out again, and the quantity was thus frequently somewhat increased, and certainly never diminished. She had no evacuation by stool or urine, but had occasionally belchings of wind. During the day, she sewed and amused herself with reading. She rose, or rather was lifted from bed, at 9 A. M., and was carried back at 11 P. M.; but she slept very little, being much distressed with headache, swoonings, and cramp. Her age at this time was 41, but her appearance indicated more than 60 years, her face being shrivelled, and her eyes dull and lustreless; her tongue was clean and dry; the skin was parched; the pulse was normal in frequency, but exceedingly weak and small; the sensibility of the cutaneous, and perhaps also of the deeper nerves, was so much impaired, that she was scarcely aware of her skin being pinched or pricked. Every hour and a half she was seized with a shivering, followed by a convulsive lateral agitation of the head; these fits lasted generally for about two minutes.

Dr. Schmalz (the reporter of the case) visited her in September 1828, and had an opportunity of being perfectly satisfied with the truth of the preceding statements. She told him that she had not eaten nor drunk anything since the report of the medical commission, nearly two years before; and if we go back, we shall find that this extraordinary

abstinence had now lasted six years and a half, from March 1822. The patient told Dr. S. that she would very willingly take food, if she could in any way swallow it, but that this effort was impracticable to her.

Here the report ceases, and Angelica was still alive at the date of the report.

CASE II.—*History of a Female who lived upwards of two and a half Years without Food.*

Professor Ricci, of Turin, has published a full detail of this case in the *Repertorio di Medicina et di Chimica di Torino.*

Anna Garbero, aged 40, had hitherto enjoyed moderately good health, although her appetite had been remarkably sparing. Her food consisted generally of vegetables, only once a day; and the bowels were not usually relieved above twice a week. Gradually the appetite became less and less, and once she passed forty days without touching any solid or fluid aliment. But it was not till September 1825 that a total inappetence for food came on; it was after a very scanty meal, consisting of only a mouthful or two of cabbage, and a draught of wine and water, that she was seized at once with intense gastralgia, which continued for some time, till copious vomiting was induced. From this date she was unable to swallow anything, and even her spittle was thrown back when she tried to allow it to pass down. Up to the 7th of the succeeding January she neither eat, drank, nor had any relief by urine or by stool; the only appreciable evacuation was that of the catamenia, which, though very sparing, returned regularly.

Dr. Schmalz visited her at this period; he found her so emaciated, that she seemed a mere skeleton, over which a dry skin had been forcibly stretched. The skin was almost quite insensible to pricking, or to the strongest pressure; the limbs were cold and corpse-like; the pulse small and scarcely perceptible, but yet regular in frequency. The patient was quite willing to make an effort, at any time desired, to swallow food, but it was of no avail; and at length the mere sight of any victuals, however simple, brought on most painful vomitings. Things continued so till the end of June, at which time she became insensible and lethargic; this state of apathy continued till the 25th of the following November, when she quite suddenly and unexpectedly recovered her senses and speech. Her strength became weaker and weaker, and finally was exhausted in death on the 19th May, 1828.

The body was examined in the presence of Professors Rolando and Gallo, by whom a very interesting memoir was published at Turin; we give only the more interesting and illustrative details. The omentum majus was found drawn strongly downwards, and had become adherent to the brim of the pelvis, thus leaving the small intestines quite uncovered. This change had been caused by the falling down of the transverse colon, which was lying in the pelvic cavity; it was distended with hard fæces. The small intestines were, on the contrary, contracted to mere cords. On carefully tracing the colon, it was found that the canal of the descending portion was so much obstructed by the swelling of its mucous lining, that the fæces could only with difficulty be forced along. The obstruction was still greater at the commencement of the rectum,

and completely prevented the transit of any solid matters. The contents of the ascending colon were more fluid, of a dark green meconium-like color, and most intolerably fœtid. Two lumbrici and several ascarides were found in the bowels.

The rationale or etiology of the preceding case appears sufficiently simple. We conceive that a chronic inflammation of the colon and rectum had been originally caused by exposure to the inclemencies of the weather, for the patient was a beggar. Thus, not only was the appetite directly impaired, but also the passage of the fæculent matters obstructed, and the general health became more and more deranged in consequence. Complete anorexia was the consequence of the accumulation of the fæces ; the colon was dragged down by the weight, and, at the same time, the stomach and œsophagus were necessarily displaced in a similar direction, and this displacement must have seriously injured their functions. Besides, traces of a slow inflammation of the mucous coats of the small bowels, and also of the stomach, were found upon dissection ; and our readers need not be reminded of the effects which we daily observe to flow from such a morbid state. In short, we are to regard the preceding case as one of the melancholy results of neglected subacute enteritis, originally of the rectum and sigmoid flexure, and subsequently of the rest of the canal.—*Journ. der Pract. Heilkunde, and Med. Chir. Review.*

MEDICAL IMPROVEMENT.—NO. I.

[Communicated for the Boston Medical and Surgical Journal.]

At the present time, many of the public instructers in this country are making very laudable efforts to induce their students to take regularly so much exercise, either by way of amusement or profitable labor, as may be sufficient to ensure a healthy constitution of body, while they are disciplining the mind for future usefulness and eminence. It is to be hoped that their exertions will be crowned with success, and that it will soon be demonstrated that our youth may acquire the highest mental cultivation, without being in danger of sacrificing their health.

In this age of improvement, there is another subject which demands equal attention. It is to devise some plan, by which professional men, and particularly *physicians, may continue to pursue their studies while they are engaged habitually in active business.* It requires no proof, that the great body of practising physicians in our country study but very little after they are settled in business. The round of visiting their patients, the care of their families, and the attention to their ordinary duties as active members of society, seem to leave them little or no time for further mental cultivation. After practising awhile, they appear to have lost the taste for reading, and deep study is generally out of the question. The consequence is, that however useful they may be in their common routine, in managing the usual complaints which occur in every-day practice, very few arrive at much eminence, or even are well fitted to treat a severe or anomalous case.

However, the assiduous performance of all the duties of active and

professional life is by no means incompatible with the highest literary and scientific attainments. This is evident from the biographies of many distinguished men, such as those of Sir William Jones, Dr. Good, and Dr. Adam Clarke. The practice of Dr. Good was so extensive, that his income amounted to £1500 sterling, or $7000 to $8000 a year, and yet his literary and scientific productions were more numerous than those of most who are mere authors by profession. Besides, his writings, in common with the efforts of other practical men, were upon more useful topics, and far better adapted to the improvement of mankind, than most of those which come from the closets of purely speculative men. The same remark will apply to Dr. Clarke and Sir William Jones, as well as to many other professional men in Europe, who, without having in the least neglected the duties of their profession, are eminent in literature and science. Indeed, they excelled as practical men, and are among those who have arrived at the highest standing in the theoretical parts of their professions.

It is apprehended that, with us, the number of men of this description, of those who combine the active duties of life with mental application and scientific and literary effort, is comparatively small—much less, in proportion, than is met with in foreign countries. There can be no defect in genius, for there is proof enough to show that we have talents sufficient among our countrymen to undertake and execute any laudable enterprise. The only difficulty is, to bring these talents into operation, and to apply them perseveringly to any proper object. Instead of supposing that he has finished his studies when he enters upon practice, the true scholar finds that he has only begun to learn to study to advantage, and that he is now often in a situation to profit more by studying a single day, than he had before been by plodding for weeks over his books. Reading and practice combined, mutually assist each other, and often easily explain what is obscure in both.

The first requisite unquestionably is, to form *a taste for study and mental application*; the second is, to improve continually this taste by *a regular and persevering exercise of the mental powers*, till it becomes fixed into a confirmed habit. The education of many Americans is probably deficient in both these particulars. They are apt to be in haste about most things which they undertake—to perform their task rapidly, rather than to take pains to do it well. Their early instruction is too often superficial; and even when a good foundation is laid, they frequently enter upon practice before they have studied a sufficient time to acquire a confirmed taste for mental effort, or have formed such a habit of close application as to make their studies a pleasure rather than a task.

If the public mind had allowed the execution of the plan which was proposed a few years since, of requiring an additional year's study from all the candidates for the practice of physic, there would undoubtedly have soon been a visible improvement in the junior members of the profession. Without pretending to determine where the fault lay, it is difficult for any one who is attached to his profession to keep his patience, when he reflects that there was not energy and decision enough to carry this all-important regulation into effect. It is also mortifying to think, that those schools which most strictly entered into the project, came near

to being ruined by the diminution of their numbers, in consequence of the facility of acquiring degrees at other institutions. The rigid enforcement of a seven years' apprenticeship, has undoubtedly contributed much to the perfection of the mechanical arts in England. Surely, as much time ought to be spent in disciplining the mind of the candidate for either of the learned professions, as is required in fitting a young man to become a journeyman shoemaker. The young mechanic must not only have the use of tools, but he must acquire the habit of using them with dexterity, so that he may be certain of producing a given result, to the benefit of his employers and the comparative ease of himself. The case of the professional man is parallel. During his preparatory studies (which are his apprenticeship) he has to acquire the necessary kinds of knowledge (which are his tools), and at the same time he is to gain a dexterity in their application, with such a habit of mental investigation and exertion, that both study and active business may become easy and pleasant through his whole life.

When this is the case, a professional man, however pressing his avocations, cannot be prevented from continuing to study. He has a predominant taste, an irresistible curiosity, which will cause him to steal time to read everything which is likely to add to his stock of valuable information, and to make him an abler and better man. With him, mental improvement becomes not only a habit, but a passion—and, like every other passion, this will, if possible, be gratified. Dr. Good could take Lucretius with him, and with the glance of his eye study and translate pages while walking to visit his patients. Without some taste, some zeal, some passion of the kind (though not necessarily in the same degree), nothing great, which depends upon persevering effort, was ever accomplished. In fact, without something of this habitual pleasure in mental effort, no man ever arrived at permanent professional eminence. Genius alone sometimes strikes out a happy thought, but it is rarely of much practical utility to itself or others, unless it is so disciplined as to take pleasure in persevering application.

Our physicians and other professional men have genius enough—their defect is in mental discipline, which was not acquired during their preparatory studies in such a degree as to make the daily acquisition of knowledge, and the habitual exercise of the mental powers, become a primary object of pursuit, and a principal source of their highest enjoyment. Knowledge is the food of the mind—its application is mental digestion, and neither body nor mind can long remain sound without suitable daily nutriment. In reality, the mind of the practitioner, who neglects his professional studies, is probably as busy and as constantly employed as that of the closest student. But it is employed in the wrong way ; the mental food is bad in kind, and perhaps deteriorates the intellect. His fragments of time are apt to be spent in trifling conversations, or in frivolous pursuits, or even in some kind of business which unfits him for his profession by turning the attention to an improper object. It is owing to habits of this kind, and to the diversion of the mind from what ought to demand his highest attention and concentrate all his powers, that we so often find a professional man, who began his career with much promise, in a few years to disappoint all the sanguine expectations of his

friends, to fall into a dull routine, and perhaps in the end to sink below the obscurity of mediocrity.

This essay is merely introductory, it being intended in a future series of numbers to call the attention of the faculty to *the means for improving the medical profession in our country.* S.

UTERINE HEMORRHAGE—ERGOT.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—The value of health renders the science of medicine interesting to all classes ; but it is doubly so to the members of the medical profession, who have the responsibility of doing, and *doing correctly*, too, all that the state of the science permits for the relief of their patients. These considerations render it peculiarly desirable that whatever is said or written on the subject should be strictly compatible with the truth, without the least embellishment. Perhaps no publication circulates extensively more medical information than your Journal. Being a constant reader of it myself, it may naturally be supposed that I am not indifferent to its contents.

I have introduced these remarks by way of apology to W., who writes for your Journal under date of August 21, 1833, as I wish to inquire of him whether he can, in fact—as he states on page 30—during the seventh month (or any other period) of pregnancy, rupture the membranes with his finger, when there is no pain nor symptoms of labor present ; and whether ergot will in twenty minutes produce its peculiar pain, when no symptom of labor is present. I wish to inquire, too, whether it is practicable to produce artificial delivery in two hours time, previous to the commencement of any symptoms of labor. W. is reminded that in his first sentence he says, "Few diseases are more embarrassing to a physician, or more *alarming to the patient*, or more dangerous to life, than uterine hemorrhage during pregnancy." Yet in his worst case, when his patient was in the "utmost danger," one of the most "*alarming* symptoms" was a "*perfect indifference* and unconcern about her situation." W. speaks of dilating the os uteri, of introducing his hand into the vagina at the third month, as though very little difficulty or danger would attend such an operation. Now most experienced accoucheurs believe that the uterus is an organ of immense power ; that the os uteri is unyielding, and cannot be dilated when no symptoms of labor are present, without doing unpardonable violence to the parts ; and that even the os externum does not admit the introduction of the hand until dilated by the process of nature. It is well known that the membranes may be ruptured during any period of pregnancy, with a suitable instrument, without much difficulty, if in the hand of a skilful operator. It is well known, too, that ergot acts powerfully to restrain uterine hemorrhage, and destroy the life of the fœtus. But it is disbelieved that it has any power at all to originate labor, or labor pains, otherwise than by deranging the healthy function of the uterus, and destroying the life of the fœtus ; and of course abortion would follow. It is indeed admitted that under certain circumstances, when labor has already commenced, it

will produce contractions, and sometimes powerful contractions, of the uterus. But it often fails, and is always attended with the utmost hazard to the child—the pains being unnatural, and not synchronous with the necessary functional changes to accomplish safe delivery.

In conclusion, permit me to say to W. that I have thus frankly dealt with him, not because he is more deserving than many others who report for the journals of the day, but because his communication seemed worthy of the pains of accurately understanding and of preserving.

August 28, 1833. JUNIUS MEDICUS.

EXPERIMENTS ON DIGESTION AND THE GASTRIC FLUID.

[WE have received from our esteemed friend Professor Sewall, of Washington, the following notes, respecting some highly interesting and important experiments on the subject of digestion and the properties and powers of the gastric fluid, to which we invite the special attention of the reader.]

(*From the Advocate and Journal.*)

Washington City, Dec. 7th, 1832.

DEAR SIR,—Yesterday I was afforded an opportunity of presenting to my class, at the anatomical theatre of our Medical College, a novel and most interesting case. The following is a brief sketch of its history.

In June, 1822, Alexis San Martin, a French lad of eighteen, was wounded, at Fort Mackinac, situated upon our western frontier, by an accidental discharge of a musket loaded with duck-shot, in the left side, carrying away the integuments and muscles, the size of a man's hand, fracturing and tearing away a part of the fifth and sixth ribs, removing a portion of the diaphragm, lacerating the lower part of the left lung, and perforating the left extremity of the stomach. The edges of the wound in the stomach became attached to the pleura by adhesive inflammation, leaving an external opening communicating with the cavity of this organ. The lips of the wound have healed, and the external opening leading into the cavity still remains open, by which the food and drink escape whenever the stomach is distended or the boy reclines upon his left side, unless the aperture is closed by a compress, or by a valve which is formed by the protrusion of the inner coat of the stomach, which in certain conditions of the organ is turned out and exhibits the appearance of a half-blown rose. The opening is so large as to enable us to look into the stomach, examine its action, and to mark the progress of the digestion of the food.

Dr. Beaumont, the United States Surgeon in whose practice this case occurred, and by whose skill and perseverance the life of the boy was preserved, has already made some ingenious and interesting experiments upon the powers of the gastric fluid in digesting the different kinds of food subjected to its action.

By attaching a number of articles to a thread, such as cabbage, bread, fat pork, boiled beef, à la mode beef, and raw beef, and by passing them into the stomach at the same time, through the external opening, and drawing them out and replacing them at different intervals, he has been enabled to ascertain with considerable precision the relative facility with which these different articles are converted into chyme. Also by extracting quantities of the gastric fluid from the stomach by means of a

syphon, and placing food in it, he has been enabled to repeat the celebrated experiments of Spallanzani, and to confirm the statement made by that physiologist, who says that the gastric juice acts upon food out of the stomach as well as when in that organ, provided it is subjected to the same temperature and to a state of agitation.

Dr. Beaumont is now in this city, and is prosecuting an inquiry into this subject by a series of experiments instituted upon the boy, which promises to lead to some interesting results. The opportunity presented by this case of experimenting upon the subject of digestion is a rare one, and it should not be unimproved.

Several similar cases are on record, having occurred at different times, but no one seems to have been employed to much purpose.

THOMAS SEWALL.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—Since making the foregoing communication to a friend, and which was published in one of the public prints, I have been frequently inquired of as to the progress of Dr. Beaumont's experiments, and whether his researches would not ere long be spread before the profession. I am happy in having it in my power at length to answer these inquiries. Dr. Beaumont, after closing his experiments in this city in March last, repaired with his man to New York, where he has continued to prosecute his inquiries. He is now nearly ready to lay the result of his investigations before the world—having already prepared for the press MS. sufficient for an 8vo. volume of 250 or 300 pages. The work will comprise an account of the origin, history and treatment of the case; all the experiments and observations which have been made, with the inferences drawn from them; partial analysis of the gastric fluid; with remarks illustrative of such new physiological facts as have been developed in the course of the investigation; accompanied with several accurate drawings, made from observation, by C. B. King, Esq. of this city, exhibiting the different views of the stomach during the progress of digestion.

Dr. Beaumont has found great difficulty in procuring a chemical analysis of the gastric fluid. He has furnished portions of this fluid to several eminent chemists, among whom are Prof. T. P. Jones, of this city; Profs. Emett and Dunglison, of the Virginia University; Prof. Silliman, of Yale College; and Dr. Bache, of Philadelphia. But he has not been so successful, in obtaining satisfactory results, as could be wished. He has been advised, by Prof. Silliman, to forward a quantity of the gastric fluid to Prof. Jacob Berzelius, of Stockholm, Sweden. He has accordingly sent out sixteen ounces of pure gastric fluid, with the hope that he may receive Prof. Berzelius's analysis in time for the volume, which he intends to put to press in November. It is now for a period nearly of eight years, that Dr. Beaumont has supported San Martin and his family, at his own private expense, for the single and laudable purpose of prosecuting a series of physiological experiments upon the important subject of digestion; during this time he has kept him continually under his eye, and has been pushing his inquiries and marking the results of his experiments. Such personal sacrifices, professional enterprise, and persevering industry, entitle him to the thanks of every medical philosopher. And we may presume, from the advantages thus enjoyed for investigating the subject experimentally, the protracted labor and attention he has bestowed upon it, and the aids he has called in to his as-

sistance, as well as his known fidelity and intelligence, that he will furnish a work of great value, and such as will command the attention and patronage of the whole medical profession. Very truly yours, &c.

Washington, September 6th, 1833. THOMAS SEWALL.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 18, 1833.

DIVISION OF THE NERVE IN TETANUS.

WE noticed some months since an account of a case of tetanus, related in one of the periodicals of the day, in which the division of the nerve at the part originally injured was followed by instant relief. The case was highly interesting, as it went to show to what extent an affection of the system, apparently general, might be dependent on a local lesion, not only as its first exciting cause, but as keeping up subsequently the general irritation. It would seem as if, in that case, some influence were constantly communicated in the direction of the nerves to their centre, and that by intercepting the communication between them, the supply, as it were, of the irritation, was cut off. Where local inflammation remains in these and similar cases, it is not difficult to imagine how an operation which checks or modifies that inflammation may cure the disease; just as fever kept up by a foul ulcer will be arrested when the ulcer is made to assume a healthy character. But the difficulty is to understand how an impression is to be made on a general irritation, through the medium of the original seat of lesion, at a period when the local effects of the lesion have disappeared, and the part originally injured is to all appearance healthy. Again, when a part has been inoculated with vaccine virus, we conceive that there may be a certain interval within which, if the vaccinated portion could be removed, or the virus extracted, the course of the disease would be arrested. Whether a similar interruption of the specific disease would occur, in consequence of a removal of, or injury to the point of inoculation at a later period, and what is the limit beyond which the morbid centre ceases to exert this control, it is not very easy to determine; nor is it in fact very important to know. But there are other diseases of systems, dependent on local irritation, in regard to which, this question as to the period of time to which this connection continues, assumes a character of the very first importance. One of these, and a very prominent one, is hydrophobia. The point seems long since to have been settled, that if a part inoculated with the rabid virus be immediately excised, the disease will be arrested and the symptoms of hydrophobia will not follow. But it appears equally to have been supposed, that as soon as time has been allowed for the absorbents to take up the virus, and convey it into the channel of the circulating fluid, very little was to be hoped from any operation; and that when once the disease is actually developed, such a proceeding was utterly futile. Before assuming this, however, it should have been considered that we are by no means certain of the medium of communication between the part bitten and the general system. It may take place, as is supposed in tetanus, by the nerves; in which case there would be something to hope from intercepting the communication, even when the general symptoms have commenced. But

without entering very deeply into the theory of the matter, it is sufficient to observe, that any facts which would go to show that excision forms a remedy for, as well as a preventive of hydrophobia, must be hailed with satisfaction, not only as alleviating the terror of this dreadful malady, but for their bearing on the subject of general pathology. Such facts are unfortunately very few in number; but we have recently met with three cases, contained in an excellent lecture on hydrophobia by Dr. Stokes of Dublin, which will appear so much more interesting, in connection with the lecturer's general remarks, that we shall venture to present to our readers the whole extract.

"Joseph Junks, a soldier, was bitten on the 1st of March, 1792, by a mastiff bitch. That the animal was mad, was proved by the following circumstance. She bit her master in a quarter of an hour after biting Junks. In about seven weeks this gentleman died of hydrophobia. Three days after receiving the bite, Junks applied to the surgeons of the regiment, who cut the flesh off the thumb and finger down to the bone, and kept the parts in suppuration for some time. He was also salivated, and took the *pulvis antilyssus*. He continued under this course for about six weeks, when he was discharged as well; but at new and full moon the parts which had been healed broke out afresh, and healed again in two or three days. He went on in this way till about the beginning of March, 1793, when about full moon his wounds again broke out; his arms swelled; his eyes appeared very wild, and he was in the utmost anxiety. In the extremity of his distress he applied to a smith, who put some spirit of salt (muriatic acid) into the wound. He passed the night in great agony, but on the next day was much better; the wounds soon healed, and two years after, when the account was written, he was perfectly well.

"In another case, related by Dr. Guthrie, a boy was bitten by a dog unquestionably mad, as the animal bit two other dogs who died of rabies in a month. The wound was in the foot; it was scarified till it bled freely, and afterwards was dressed with strong mercurial ointment fourteen days, and a small blister occasionally applied over the part. By this and other applications, the wound was kept discharging for five weeks. It was then suffered to heal. Ten days afterwards the boy felt shooting pains in the cicatrices, which lasted for several days. One of the cicatrices then began to inflame, when Dr. G. immediately ordered the wounds to be reopened, and dressed with mercurial ointment. During its use the pains were subdued, the eruptive appearance ceased, and the boy continued well long after.

"These cases might possibly admit of other explanations, but they derive a value from collateral facts. The case on which my father placed most reliance as supporting his views, occurred under his own care, and was certainly a very singular one. A young woman who had been bitten, was attacked with all the symptoms of hydrophobia. She had not slept nor swallowed liquids for thirty-six hours, when the tourniquet was applied to the thigh of the side on which she had been bitten, so as to deaden the nervous communication between the bitten portion and the trunk. This poor girl very soon after the application of the tourniquet fell asleep, and on awakening was able to drink. She continued drowsy, drinking occasionally for some hours; nay, the next morning, so conscious was she of the relief which the tourniquet had given her, at a time when she had been making fruitless efforts to swallow, that she said to my father, 'If that were fastened to my knee I think I could drink.' It was examined and found to be loose; it was tightened, and immediately afterward she

could drink again, which she had not done for some time before. It was suggested to my father, that the action of the tourniquet might be explained, on the principle of one irritation discharged by another—an explanation so absurd that it is unnecessary to dwell upon it. In this case the amputation of the limb was proposed, but was prevented by circumstances. The case of course proved fatal."

In concluding his lecture, Dr. Stokes made the following remarks: "If we dispassionately consider all these facts, we cannot, I think, help inclining strongly to the opinion, that the line of distinction in cases of hydrophobia, between those which are necessarily fatal and those in which there is a chance of life, is not defined, and that we ought, in the treatment of the confirmed disease, to direct our attention much more to the local treatment than has hitherto been done."

LATIN PRESCRIPTIONS.

THE question is often asked, why physicians do not write their prescriptions in English. The answer is obvious—that if they did, the patient would often be less benefited than he now is. There are very few minds which have sufficient firmness, during the continuance of disease, to reason calmly on the probable effects of remedies, and to compare their wonted action on the animal economy with the indication to be fulfilled in the particular case. Yet such would be the anxiety produced in the patient, by knowing what was the article directed for his use, that he would hardly be restrained from going into a full consideration of all its possible consequences. The only state in which the mind can rest with any degree of satisfaction during severe illness, is that of implicit reliance in the skill of the physician, and an entire acquiescence in the course adopted, without the slightest question or argument as to its correctness. The physician himself, when sick, finds this necessary to his comfort; and if wise, voluntarily abstains from making any inquiry into the nature of the medicine administered to him. But it may be said that for the satisfaction of the friends, the nature of the articles prescribed ought to be known. We believe, however, that this course, so far from contributing to the satisfaction of the non-medical attendants, would tend only to produce the reverse. Every prescription would become the subject of discussion between the doctor and the nurse, and the friends of the suffering party would be compelled to listen to, perhaps to take part in the argument. If the article prescribed failed immediately to effect its purpose, the plan pursued would at once become the topic of criticism, and endless disputes would ensue between the parties concerned. In fine, in the cure of disease, as in the management of a ship or any other important duty, there must be one responsible person; and as any interference with him is a breach of discipline in the one case, so is it a crime against courtesy in the other. The former meets its appropriate punishment; but as the latter would be allowed to pass in impunity, the temptation to it is wisely avoided by keeping the parties who would be likely to interfere in a state of ignorance. We state this as the true argument for having prescriptions generally conveyed in an ancient language; for whenever an explanation of his views and plan of treatment is requested of the physician by his patient, being of sound mind, he is bound to impart it, although it may be judicious to warn the patient that the information thus asked is likely to be of little service. Of the right of the patient to be informed on this subject, there can be no question; the expediency of

giving him the information is another matter, and one on which the physician will have to exercise the soundest discretion. The following are the remarks of the excellent Dr. Gregory on this subject.

"Curiosity in a patient or his friends to know the nature of the medicine prescribed for him is natural, and therefore not blameable; but it is a curiosity which it is often very improper to gratify. There is a natural propensity in mankind to admire what is covered with the veil of obscurity, and to undervalue whatever is fully and clearly explained to them. A firm belief in the effects of a medicine, depends more on the imagination than on a rational conviction impressed on the understanding; the imagination is never warmed by any object which is distinctly perceived, nor by any truth obvious to the common sense. Few people can be persuaded that a poultice of bread and milk is in many cases as efficacious as one compounded of half a dozen ingredients, and to whose names they are strangers; or that a glass of wine is in most cases, where a cordial is wanted, the very best that can be used. This want of faith in the effect of simple known remedies, must of necessity occasion a disregard to the prescription, as well as create a low opinion of the physician. Besides, when a patient is made acquainted with the nature of every medicine that is ordered for him, the physician is interrupted in his proceeding by many frivolous difficulties, not to be removed to the satisfaction of one ignorant of medicine. The consequence of this may be to embarrass the physician, and render him irresolute in his practice, particularly in the administration of the more powerful remedies. It should be further considered, that when a patient dies or grows worse under the care of a physician, his friends often torment themselves by tracing back all that has been done, if they have been made acquainted with it, and may thus be led very unjustly to charge the physician with what was the inevitable consequence of the disease."

DR. BEAUMONT'S EXPERIMENTS.

The profession will wait with impatience the publication of the work alluded to in Professor Sewall's letter on our 95th page. The case itself possesses a rare combination of circumstances, and the opportunity it presented for philosophical experiment is one seldom offered to the physiologist. The result of the analysis of Berzelius we shall not fail to lay before the reader in due season, and shall be obliged to Dr. Beaumont or Prof. S. to forward it to us as soon as received.

MEDICAL IMPROVEMENT.

The reader may promise himself much pleasure and profit from the perusal of the Essays, the introduction to which is this day published, under the head of Medical Improvement. He will recognize in its style the authorship of a venerable and distinguished contributor to our pages.

Recovery after Penetrating Wound of the Abdomen, with Lesion of the Os Pubis and Urinary Bladder.—A healthy young man received a pistol-shot, at the distance of ten paces; pallor, hippocratic countenance, and progressive weakness, gave reason to fear internal hemorrhage. The ball had entered half an inch above the penis, and somewhat to the right, had traversed the pelvis, and come out at the right nates, an inch and a half from the anus. Urine and blood flowed from the wound, and there

was severe tenesmus. In this state he was carried a league and a half into town, where he arrived with the abdomen very tense and painful. Immediately a hollow sound was introduced into the bladder, and eight or ten ounces of blood drawn off; the sound was allowed to remain. After an opiate the patient slept well for several hours. This was on the 30th of August. Blood and urine afterwards flowed partly from the anterior wound and partly from the sound, and there was a smart attack of peritonitis, which, however, yielded without venesection. On September 3d, at night, there was, for the first time, a voluntary discharge of urine, and some splinters of the os pubis were removed from the wound; subsequently to which, the urine continued to be in part voided naturally, excepting when the urethra was obstructed by fragments of bone, which occurred frequently from this period to the 14th October. At such times there was generally an increase of pain and bad symptoms; and once the wound assumed a gangrenous appearance, but was brought back to a healthy condition by the application of pyroligneous acid. Pus and splinters of bone were likewise occasionally passed by the wound; in one instance, also, as late as April 15th, by the posterior aperture in the nates, which was re-opened, after cicatrization, for the purpose. The patient likewise sustained an attack of intermittent fever, but at length got perfectly well.—*Ann. Univ. di Medicina.*

Medical Force of Paris.—It appears from a late return, made by the Prefecture of the Seine, that there are at present 1652 medical practitioners practising in Paris. Of these, 879 are Doctors of Medicine of the new school; 36 Doctors of Surgery of the same; 109 *Officiers de Santé*; 256 Midwives; 9 Physicians of the old school; 68 Physicians of other faculties than those of Paris; 14 *Officiers de Santé*, with certificates instead of diplomas; 12 Midwives of the same class; 19 Foreign Physicians, authorized to practise; and 300 Practitioners, who have no qualification. The last item is certainly curious—nearly a fifth part of the *corps médicale* of Paris unqualified!—and this when we consider that the profession in France is so immediately under the care and cognizance of government!—*Medical Gazette.*

Whole number of deaths in Boston for the week ending September 13, 49. Males, 25—Females, 24. Of infantile, 5—suicide, 1—dysentery, 7—intemperance, 2—old age, 2—liver complaint, 1—accidental, 1—sudden, 1—dropsy, 1—inflammation on the lungs, 2—consumption, 7—child bed, 1—scarlet fever, 1—dropsy on the brain, 1—worm fever, 1—cholera morbus, 1—croup, 1—teething, 3—unknown, 2—cholera infantum, 2—apoplexy, 1—bilious colic, 1—typhous fever, 1—fits, 3. Stillborn, 3.

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